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Prevalence of Obstructive Sleep Apnea risk among public transport bus drivers in Jaffna, Sri Lanka

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Obstructive sleep apnea Syndrome (OSAS) is a common disease associated with daytime sleepiness. OSAS is characterized by instability of the upper airway during sleep, which results in markedly reduced (hypopnea) or absence of (apnea) airflow at the nose and or mouth with accompanying de-saturation of oxy-hemoglobin. The objective of this study is to investigate the prevalence of obstructive sleep apnea syndrome (OSAS) risk among public transport bus drivers in Jaffna district Sri Lanka. Descriptive cross sectional study was done among public transport bus drivers (n=267) of both state and private sector. Stratified random sampling method was used. Interviewer-administered questionnaire and a check list were used to collect data in a survey. The prevalence of OSAS risk was estimated using the Berlin questionnaire. Mean age of study participants was 40.2 years and mean BMI was 24.8. The prevalence of Obstructive sleep apnea risk was 11.6% and the prevalence of self-reported snoring was 28.5%. Percentage reported cases of falling asleep while driving was 24.7% among drivers. The following variables were found to be in significant association with OSAS in chi-square test: Smoking (40.4%, $p=0.034$), alcoholism (38.2%, $p=0.010$) and obesity measures like neck circumference (4.5%, $p<0.0001$) and waist circumference (36.7%, $p=0.031$). The risk of OSAS had statistically significant positive correlation with systolic blood pressure ($r=0.5$, $p<0.001$) and diastolic blood pressure ($r=0.416$, $p<0.001$). Age of the drivers and betel chewing were not statistically significant associated with OSAS risk. The results conclude that 11.6% of the public driver population is at high risk for OSAS and day time sleepiness. So the relevant authorities have to consider this and it need further community based studies.

Key words: Obstructive Sleep Apnea Syndrome, blood pressure

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